Yams are one of the few food crops indigenous to Africa, and have played an important role in African culture for centuries. In many cultures, a man's wealth and importance in the community are measured largely by the size of his yam crop. The New Yam Festival is celebrated at the beginning of the harvest in almost all yam-growing parts of the West African coast from the Ivory Coast to the Cameroons.

As a staple, however, yams have many disadvantages. The price of yams per calorie is up to five times as high as other sources of carbohydrates, and the land and labor requirements for yam culture are roughly twice those for potatoes in temperate climates. Worst of all, the harvest of the deeply rooted yam tubers does not lend itself to mechanization.

In addition, yams must often be transported hundreds of miles in old trucks over bad roads, about 15 to 20 percent of the whole yam is inedible, and the edible portion is about two-thirds water. Finally, about 40 percent of the crop is customarily lost in storage.

Stored yams, particularly these damaged in transit, are subject to infestation by innumerable bacteria, fungi, insects, and nematode worms. Even in the absence of such infestations, ordinary cell respiration over seven or eight months of storage can reduce a large yam to a shadow of its former self. For all these reasons, yam prices in West African markets skyrocket during the three or four months before the new harvest in September.

For all of these reasons, yams are becoming less important in Trinidad, where they were long a staple. And they may eventually decline even in West Africa, where an increasing number of persons have neither the time nor the servants for the tedious process of making fu-fu.

A number of West African government and university laboratories are working on better means of yam storage. On the village level, the best way seems to be to store the tubers in shaded racks in the open with free circulation of air, a method which is traditional in large parts of the yamgrowing zone. Since storage losses diminish rapidly with cooling, one answer may be centralized storage at temperatures slightly above 10 degrees C. the temperature at which irreversible chilling damage begins to take place. Such methods would be especially useful for export of yams to the West African communities in Great Britain and France.

The most satisfactory solution to West Africa's yam problem is instant fu-fu. At one stroke, this would reduce storage losses and transportation costs, and save much of the work of prepara-

tion. Food scientists at the University of Ghana and elsewhere have succeeded in modifying the American process for making instant mashed potatoes to produce palatable—but not yet marketable—fu-fu.

The African consumer of prepared foods is notoriously finicky, however, and food technologists are reluctant to market an instant product that does not yet reproduce exactly the taste and consistency of the original.

FROM SWITZERLAND

## World Health Service Proposed by Ciba Head

The World Health Organization has been limping along on a \$50 million annual budget. It annually fights doggedly for increases from among its 127 nation-members. Soon, WHO may face competition from a hybrid, public-private organization designed to supplement the WHO assault on the perilous world health balance, but which would in fact take some of the wind out of WHO's sails.

Several developing nations, including Algeria, Iran and Yugoslavia have already expressed keen interest in a proposal made to health officials worldwide by Dr. G. E. W. Wolstenholme, director of the Ciba Foundation. In addition, Switzerland and Britain are described as "naturally" interested, and U.S. officials have expressed interest at least in seeing the subject pursued and discussed.

Dr. Wolstenholme contends that the health gap between the developing and the advanced nations has opened wider than the economic and technical gaps.

His answer is a World Health Service, which he describes as an expansion, rather than a duplication, of the health activities of WHO.

In fact, the WHS executive board as he foresees it would include WHO top doctors and officials of the two international Red Cross agencies in Geneva, plus other UN agencies and a host of private international associations and societies.

First task, Dr. Wolstenholme points out, is to assess the resources needed to carry out the work, in terms of men, money and materiel.

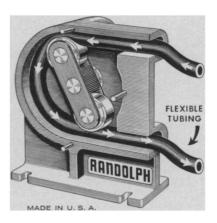
The Ciba doctor estimates that a minimal but telling contribution could be made by WHS on a budget of \$100 million a year—double the sum WHO has been able to extract from strictly public sources.

The first WHS professional teams would conduct pilot missions in catastrophic areas not only to save lives fast but to gain experience and to adapt to field conditions.

(More foreign news: p. 435)



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